AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A serial data conversion apparatus, comprising:

a video signal packet conversion unit ~~for converting~~ configured to convert a characteristic signal of a video signal into a video signal characteristic packet and to simultaneously ~~converting~~ convert a video signal into a video signal packet by the characteristic signal of a video signal, horizontal/ vertical synchronization signals, and a video clock signal;

an audio signal packet conversion unit ~~for converting~~ configured to convert a characteristic signal of an audio signal into an audio signal characteristic packet and to simultaneously ~~converting~~ convert an audio signal into an audio signal packet by the characteristic signal of an audio signal, left/ right control signals, and an audio clock signal; and

a control signal packet conversion unit ~~for converting~~ configured to convert a control signal into a control signal packet by an informing signal which informs a generation of a control signal,

wherein the video signal packet conversion unit comprises:

a video signal characteristic recognizing unit configured to recognize video signal characteristics from an input characteristic signal of a video signal and to generate a video signal characteristic packet;

a video signal control unit configured to directly receive the video signal characteristics from the video signal characteristic recognizing unit and to generate a header and a tail of a

video signal based on the received video signal characteristics, input horizontal/ vertical

synchronization signals and a video clock signal and to simultaneously output a video signal;

a video signal memory unit configured to directly receive the video signal output by the

video signal control unit and to store video signal; and

a multiplexer directly connected to the video signal control unit and the video signal

memory unit and configured to select a header and a tail output by the video signal control

unit and a video signal output by the video signal memory unit to thus generating a video

signal packet.

2. (Canceled).

3. (Currently Amended) The apparatus of claim 1, wherein the audio signal packet

conversion unit comprises:

an audio signal characteristic recognizing unit ~~for recognizing~~ configured to recognize

audio signal characteristics by a characteristic signal of an audio signal and generating an audio

signal characteristic packet;

an audio signal control unit ~~for generating~~ configured to generate a header and a tail of

an audio signal by audio signal characteristics recognized by the audio signal characteristic

recognizing unit, left/ right control signals, and an audio clock signal and to simultaneously

~~controlling~~ control a storage and an output of an audio signal;

an audio signal memory ~~unit for storing~~ configured to store and ~~outputting~~ output an audio signal by a control of the audio signal control unit; and

a multiplexer ~~for selecting~~ configured to select a header and a tail of the audio signal control unit and an audio signal of the audio signal memory unit by a control of the switching control unit and to thus ~~generating~~ generate an audio signal packet.

4. (Currently Amended) The apparatus of claim 1, wherein the control signal packet conversion unit comprises:

a control signal control unit ~~for generating~~ configured to generate a header and a tail according to an informing signal of a control signal and ~~controlling~~ to control a storage and an output of a control signal;

a control signal memory unit ~~for storing~~ configured to store and ~~outputting~~ output a control signal according to a control of the control signal control unit; and

a multiplexer ~~for selecting~~ configured to select a header and a tail of the control signal control unit and a control signal of the control signal memory unit by a control of the switching control unit and to thus ~~generating~~ generate a control signal packet.

5. (Currently Amended) A serial data conversion apparatus comprising:

a video signal packet conversion unit ~~for converting~~ configured to convert a characteristic signal of a video signal into a video signal characteristic packet and to simultaneously ~~converting~~ convert a video signal into a video signal packet by the characteristic signal of a video signal, horizontal/ vertical synchronization signals, and a video clock signal;

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an audio signal packet conversion unit ~~for converting~~ configured to convert a

characteristic signal of an audio signal into an audio signal characteristic packet and to

simultaneously ~~converting~~ convert an audio signal into an audio signal packet by the

characteristic signal of an audio signal, left/ right control signals, and an audio clock signal;

a control signal packet conversion unit ~~for converting~~ configured to convert a control

signal into a control signal packet by an informing signal which informs a generation of a control

signal;

a multiplexer ~~for switching~~ configured to switch and ~~selecting~~ select the video signal

characteristic packet, the video signal packet, the audio signal characteristic packet, the audio

signal packet, and the control signal packet by a certain format structure;

a switching control unit ~~for controlling~~ configured to control a conversion of the video

signal packet, the audio signal packet, and the control signal packet and controlling a switching

operation of the multiplexer;

an encoder ~~for encoding~~ configured to encode an output signal of the multiplexer;

a parallel/ serial conversion unit ~~for converting~~ configured to convert an output signal

of the encoder into serial data; and

an optical signal transmitting unit ~~for converting~~ configured to convert serial data

converted at the parallel/ serial conversion unit into an optical signal and then transmitting,

wherein the video signal packet conversion unit comprises:

a video signal characteristic recognizing unit configured to recognize video signal

characteristics from an input characteristic signal of a video signal and to generate a video

signal characteristic packet;

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a video signal control unit configured to directly receive the video signal characteristics

from the video signal characteristic recognizing unit and to generate a header and a tail of a

video signal based on the received video signal characteristics, input horizontal/ vertical

synchronization signals and a video clock signal and to simultaneously output a video signal;

a video signal memory unit configured to directly receive the video signal output by the

video signal control unit and to store video signal; and

a multiplexer directly connected to the video signal control unit and the video signal

memory unit and configured to select a header and a tail output by the video signal control unit

and a video signal output by the video signal memory unit to thus generating a video signal

packet.

6.   (Canceled).

7.   (Currently Amended) The apparatus of claim 5, wherein the audio signal packet

conversion unit comprises:

an audio signal characteristic recognizing unit ~~for recognizing~~ configured to recognize

audio signal characteristics by a characteristic signal of an audio signal and ~~generating~~ to

generate an audio signal characteristic packet;

an audio signal control unit ~~for generating~~ configured to generate a header and a tail of an

audio signal by audio signal characteristics recognized by the audio signal characteristic

recognizing unit, left/ right control signals, and an audio clock signal and to simultaneously

~~controlling~~ control a storage and an output of an audio signal;

an audio signal memory unit ~~for storing~~ configured to store and ~~outputting~~ output an

audio signal by a control of the audio signal control unit; and

a multiplexer ~~for selecting~~ configured to select a header and a tail of the audio signal

control unit and an audio signal of the audio signal memory unit by a control of the switching

control unit and to thus ~~generating~~ generate an audio signal packet.

8. (Currently Amended) The apparatus of claim 5, wherein the control signal packet

conversion unit comprises:

a control signal control unit ~~for generating~~ configured to generate a header and a tail

according to an informing signal of a control signal and ~~controlling~~ to control a storage and an

output of a control signal;

a control signal memory unit ~~for storing~~ configured to store and outputting output a

control signal according to a control of the control signal control unit; and

a multiplexer ~~for selecting~~ configured to select a header and a tail of the control signal

control unit and a control signal of the control signal memory unit by a control of the switching

control unit and to thus ~~generating~~ generate a control signal packet.

9-13 (Canceled).

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